

REPLACED BY
ART 34 AMDT

We claim:

1. A process for selectively hydrogenating citronellal to citronellol in which a liquid phase, in which the citronellal is dissolved and particles of a catalyst are suspended which is capable of preferentially hydrogenating carbon-oxygen double bonds over carbon-carbon double bonds, is conducted through a device which inhibits the transport of the catalyst particles in the presence of a hydrogen-containing gas.
- 5 2. A process as claimed in claim 1, wherein the active component of the catalyst comprises ruthenium.
- 15 3. A process as claimed in claim 1 or 2, wherein the device inhibiting the transport of the catalyst particles has orifices or channels whose hydraulic diameter is from 2 to 2000 times the average diameter of the catalyst particles.
- 20 4. A process as claimed in any of the preceding claims, wherein catalyst particles having an average diameter of from 0.0001 to 2 mm are used.
- 5 25 5. A process as claimed in any of the preceding claims, wherein the device inhibiting the transport of the catalyst particles is a dumped packing, a knit, an open-celled foam structure or a structured packing element.
- 30 6. A process as claimed in any of the preceding claims, wherein the liquid phase and the hydrogen-containing gas are conducted through the device inhibiting the transport of the catalyst particles at a superficial velocity of more than 100 m³/m²h.
- 35 7. A process as claimed in any of the preceding claims, wherein the surfaces of the device facing toward the liquid phase have a roughness in the region of from 0.1 to 10 times the average diameter of the catalyst particles.
- 40 8. A process as claimed in any of the preceding claims, wherein the liquid phase further comprises an inert diluent.